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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,350	10/26/2001	Roger L. Schultz	SC-00-12	2238

7590 06/03/2003

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EXAMINER

DANG, HOANG C

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,350

Applicant(s)

SCHULTZ ET AL.

Examiner

Hoang Dang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 16 and 19-21 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-14 and 17 is/are rejected.
- 7) ☒ Claim(s) 8 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6, 8 & 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 12, 14, 16 and 18 are objected to because of the following informalities: The word "system" in the first line of these claims should be --method-- respectively since they all depend on a method claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6 and 9-14 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Dublin, Jr. (US 6,068,394).

Dublin, Jr. discloses a system comprising a drill string (14) having a drill bit (22), a downhole sub assembly (20) and a plurality of strain sensors (e.g., 42, 44, 46, 48, 190, 192). It is noted that a preamble, e.g., "for predicting roller cone drill bit failure" or a limitation of use, e.g., "is used to calculate relative changes in strain between said sensors to thereby predict bit failure" is given no patentable weight.

It is noted that the preamble of claims 1, 3, 5, 9 and 11 is given no patentable weight since it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained

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description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Similarly, a limitation of use, e.g., "is used to calculate relative changes in strain between said sensors to thereby predict bit failure" or "wherein said relative changes in strain between said sensors is used to determine bit condition" is given no patentable weight it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

As to claims 11-14, see column 1, line 52 through column 2, line 17 and column 9, lines 36-56.

4. Claims 1, 2, 5, 6, 7, 9, 10-14 and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Zaleski, Jr. et al (US 5,813,480).

Zaleski, Jr. et al disclose a system comprising a drill string (19) having a drill bit (26) and a plurality of strain sensors (e.g., 125, 127, 129). It is noted again that a preamble or/and an intended use are given no patentable weight as pointed out above.

As for claim 7, the claim does not require that the relative change in axial strain be between different sensors. In other words, the "relative change in axial strain" can be interpreted as relative change between different axial strain measurements from one strain sensor. Claim 7 therefore does not distinguish from Zaleski, Jr. (see column 11, lines 58-63).

As to claims 11-14 and 17, see column 9, lines 26-52 and column 11, line 52 through column 12, line 10.

Allowable Subject Matter

5. Claims 15, 16 and 19-21 are allowed.
6. Claims 8 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Specification

7. The disclosure is objected to because of the following informalities: The copending applications recited on page 1, lines 13-18 should be updated. In the Brief Description of the Drawings, "Figure 57", "Figure 58" and "Figure 59" should be --Figures 57a and 57b--, --Figures 58a and 58b--, and --Figures 59a and 59b--.

Appropriate correction is required.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Dang whose telephone number is 703-308-2149. The examiner can normally be reached on 9:15-5:45 Monday-Friday.

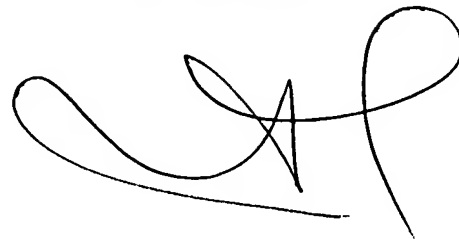
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bagnell can be reached on 703-308-2151. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3597 for regular communications and 703-305-3597 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

Hoang Dang
Primary Examiner
Art Unit 3672

10035350.1rej
June 2, 2003

A handwritten signature in black ink, consisting of a series of loops and a central vertical stroke, positioned below the printed name of the examiner.